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EVERYONE CAN BE A LIFESAVER



Royal Life Saving
ROYAL LIFE SAVING SOCIETY - AUSTRALIA

FACT SHEET No.23

Hypoxic Blackout



Q. What is Hypoxic Blackout?

A. Hypoxic Blackout is the severe reduction of oxygen to the body which dramatically affects brain function, leading to unconsciousness which can be followed by brain damage then death. We all have the urge to breathe, but this can be overridden in a swimmer who is concentrating on a goal and ignores the body's urge to breathe. When Hypoxic Blackout occurs the swimmer slows down, and then loses consciousness.

Q. Under what circumstances can Hypoxic Blackout occur?

A. When someone holds their breath, the Carbon Dioxide (CO²) levels in their bloodstream rise and oxygen levels decrease. This causes the urge to take a fresh breath (intake Oxygen and expel CO²). If they do not take a breath Hypoxic Blackout occurs.

Q. Is Hypoxic Blackout common?

A. Hypoxic Blackout incidents have been recorded while people were training for the sport of "free diving" (swimming underwater as far as possible on one breath, engaging in underwater breath holding contests and training for underwater hockey).

Q. Is Hypoxic Blackout dangerous?

A. Yes, it can lead to death.

Q. What is hyperventilation?

A. Hyperventilation occurs when a person takes quick, deep breaths which reduces the CO² in the blood which is usually used as the normal stimulus to breathe. With low CO² levels the body has to rely on low oxygen levels as a stimulus to breathe which may not be reached before unconsciousness.

Q. Does hyperventilation increase oxygen stores?

A. No, hyperventilation removes CO² but does not increase oxygen stores. Royal Life Saving does not recommend hyperventilation or underwater breath holding activities.

Q. When do people hyperventilate?

A. Hyperventilation most commonly occurs when people undertake free diving. It can also be common when people hold their breath to swim underwater for long periods of time.

Real Life Story - Free diving death

A man has died after free diving with friends. The man was diving with two friends when the group became separated and it is understood the two friends found the third man's body when they surfaced. The man is thought to have died as the result of a hypoxic blackout due to a lack of oxygen.

ROYAL LIFE SAVING HAS DEVELOPED A NUMBER OF FACT SHEETS ON WATER SAFETY ISSUES IN AUSTRALIA.

Contact Royal Life Saving on: **1300 737 763**
or download them from: **www.keepwatch.com.au**

Hypoxic Blackout Checklist:

Victims of Hypoxic Blackout should be treated as you would treat a normal drowning using DRABCD. See also Fact Sheet No. 4 – Resuscitation.

- Check for danger to self, to bystanders and to victim (Danger)
- Shout "Are you ok?" and gently squeezed the victim's shoulder (Response)
- Send for help
- Clear and maintain airway (Airway)
- Look, listen and feel for breathing (Breathing)
- If no signs of life, commence CPR (Compression)
- If available, grab a defibrillator and follow the prompts (Defibrillation)
- Never try to hold your breath for long periods under water

ROYAL LIFE SAVING DOES NOT RECOMMEND HYPERVENTILATION OR UNDERWATER BREATH HOLDING ACTIVITIES.

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